An EPA Assessment of Atmospheric Water Generation

Project Plan Outline

July 10, 2017

Overarching Goals

1) Collaborate with our DOD partners to assess the state of the technology

2) Work with interested commercial vendors to evaluate their technology with a focus on microbiology

3) Leverage existing EPA expertise related to

a) opportunistic pathogens in drinking water systems (Legionella, Mycobacteria) and

b) water reuse in urban environments (specifically, AC condensate recovery)

4) Think broadly about the system level impacts of the application of this technology in real world applications

Initial phase:

1) Summarize the state of the technology (obtaining existing reports from TARDEC and summarize major findings on AWG systems (include in Fridays write up) (Nye and Impelleteri). Timeline: 2 weeks

2) Establish contact with Watergen to collaborate on assessment focused on microbiological water quality – first CRADA. Timeline: 2 weeks

3) Reach out to other commercial vendors of the technology to collaborate on assessment focused on microbiological water quality – other CRADAs (Background/rationale for the work, (Jay). Timeline: 8 weeks

Interface with Scalise/Bauer on the request for vendors

Phase II

1) Finalize approach to collaboration with vendors (Statement of Work for the CRADA). Timeline: 4 weeks

2) Get CRADAs in place with commercial vendors.

Watergen: 8 weeks

Other vendors: 16 weeks

3) Testing of commercial technologies, with a focus on research gap consistent with EPA ORD skills (environmental pathogens) (This would be in the form of the SOW provided by Scalise/Bauer) (Jahne & Nye?) Timeline: 26 weeks

Phase III

1) Developing the technology: Timeline: 24 months

a) Collaborate with TARDEC to evaluate new pressure assisted design from Rocky Research (Nye)

b) Conduct scenario analyses to evaluate the cost/benefit of the AWG vs other approached for different applications defined by the group (life cycle costing, impacts of different scenarios) (Cissy with Jeff Lape)

c) Define current limits of technology for specific applications of interest; prioritize technology areas for future development with key partners, including TARDEC (Impellitteri & Nye)